

## NOTEWORTHY COLLECTIONS

## CALIFORNIA

*LEPECHINIA ROSSII* S. BOYD & MISTRETTA (LAMIACEAE).—Ventura Co., Topatopa Mountains, Pine Canyon, tributary of the lower Sespe Canyon drainage along the east side of Santa Paula Peak ridge; near 34.44833°N, 118.96633°W [NAD 83] 1600 ft (488 m); 6 Jun 2007, L. Gross, 2791 (RSA; MO, SBBG, UC, UCR). Topatopa Mountains, Coldwater Canyon, tributary of the lower Sespe Canyon drainage, north-east of Santa Paula Peak ridge (Coldwater Canyon is the next drainage upstream [north] from Pine Canyon); near 34.46239°N, 118.96312°W [NAD 83] 1550 ft (472 m), 13 Jun 2007, L. Gross, V. Arvizu & S. Boyd 2792 (RSA; CAS, SBBG, US).

*Previous knowledge.* *Lepechinia rossii* (Ross' pitcher sage) is a member of section *Calycinae*, which includes four additional species endemic to California and adjacent Baja California, Mexico—*L. calycina* (Benth.) Epling, *L. cardiophylla* Epling, *L. fragrans* (E. Greene) Epling, and *L. ganderi* Epling—and is most readily distinguished from these taxa by its geniculate inflorescence axes, bent at 60°–90° angles relative to the subtending stems, and large, foliaceous inflorescence bracts which are generally equaling or exceeding their adjacent flowers in length, and little reduced distally (Boyd & Mistretta 2006, Madroño 53: 77–84). *Lepechinia rossii* is endemic to the western Transverse Ranges of southern California, being known from two somewhat disjunct populations, one in the Liebre Mountains (northwestern Los Angeles Co.) and one in the Topatopa Mountains (southeastern Ventura Co.) (Boyd & Mistretta, loc. cit.). Within the Liebre Mountains, *L. rossii* is known only along the summit and northern flank of Red Mountain, within the watershed of Ruby Canyon. In the Topatopa Mountains, *L. rossii* is well documented from the lower portions of Tar Creek, a major tributary to the lower portion of the extensive Sespe Canyon watershed (Boyd & Mistretta, loc. cit.). Efforts to locate additional populations of *L. rossii* within the Liebre Mountains region, e.g., in adjacent portions of Elizabeth Lake Canyon, Warm Springs Canyon, and on Warm Springs Mountain, have been unsuccessful. Within the Topatopa Mountains, two historic specimens (Evermann *s.n.*, 24 Mar 1917 [CAS #25345] and Hoffmann *s.n.*, 21 Mar 1927 [SBBG #6403]), both non-flowering and with somewhat ambiguous locality data, suggest *L. rossii* may be more widely distributed within the lower Sespe Canyon watershed of the Topatopa Mountains region (Boyd & Mistretta loc. cit.). Evermann's specimen is from "Pine Creek, near Sespe," presumably this being Pine Canyon, a major tributary of Sespe Canyon whose confluence is downstream and to the west of Tar Creek. The locality on Hoffmann's specimen is more vague, "Sespe Canyon." This may refer to the old town of Sespe, near the confluence of Sespe Creek and the Santa Clara River, just west of Fillmore, or perhaps Sespe Hot Springs, or most anywhere along the entire 88 km main trunk of Sespe Creek and the many tributaries throughout its 690 square km<sup>2</sup> watershed.

*Significance.* The Pine Canyon population of *L. rossii* documented by Gross 2791 was in full anthesis at the

time of collection, providing vouchers with well developed and diagnostic inflorescences and flowers. This population is likely the same from which Evermann collected his substerile specimen in 1917, and validates the determination of that otherwise ambiguous voucher. Our specimen from Coldwater Canyon (Gross et al. 2792) appears to be the first record of *L. rossii* for that drainage.

Together, these two collections help refine our understanding of the overall scope of the Topatopa Mountains metapopulation of this narrow endemic. *Lepechinia rossii*, as with other Californian species of *Lepechinia* in general, is essentially a pioneer species within chaparral habitats. Plants tend to occur in small, often widely scattered stands. They are usually associated with some sort of physical disturbance of vegetation and soil. Not uncommonly, this disturbance is anthropogenic in origin, e.g., cut or fill slopes along roads, and along cleared fuel breaks across ridgelines. This certainly characterizes known occurrences of *L. rossii* in the Tar Creek area of the Topatopa Mountains, and in the Liebre Mountains, where most plants are known from very near current or old roads and fuelbreaks. Unlike these previously known *L. rossii* populations, however, both the Pine and Coldwater canyon populations of *L. rossii* are strictly associated with "natural" disturbance, a fact that may provide a useful model in predicting additional occurrences within the Sespe Canyon/Topatopa Mountains region, as well as the extensive area between these populations and those of the Liebre Mountains to the east.

Both the Pine and Coldwater canyon populations of *L. rossii* were small in size (ca. 5 plants in Pine Canyon, ca. 10 in Coldwater Canyon), and limited in areal extent. Each population is situated towards the base of steep, north-northeasterly slopes within mid-elevation portions of their respective drainages, and essentially restricted to areas disturbed by relatively recent landslides. These slides, perhaps 2 to 10 years old, are associated with steeply-bedded sedimentary substrates in areas where chaparral vegetation burned 2 to 5 years earlier. The presence of recent fire combined with physical soil disturbance and relatively mesic exposure appears to be key factors controlling distribution of this narrow endemic. Based on this information, we recommend future surveys for *L. rossii* to include the entire Santa Paula Peak ridge, especially its eastern end, as well as the northern slopes of San Cayetano Mountain. Other likely areas include the West Fork of Sespe Canyon south of Topatopa Peak, Stone Corral Creek north of Pigeon Flat, and other adjacent drainages along the Sespe Canyon watershed. Similarly, the northern facing flanks of Devils Heart Peak and Sulphur Peak, especially areas between ca. 450 m to 900 m (ca. 1500 ft to 3000 ft), warrant surveys for possible new localities of this species.

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